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To Dr. J. Lieber
from his obed. serv^t
John Pickering

AN
ESSAY

ON A

UNIFORM ORTHOGRAPHY

FOR THE

INDIAN LANGUAGES

OF

NORTH AMERICA,

AS PUBLISHED IN THE MEMOIRS OF THE AMERICAN ACADEMY

OF ARTS AND SCIENCES.

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ESSAY &c.

IT is remarked by Sir William Jones, in his elegant *Dissertation on the Orthography of Asiatick Words*, that “ every man, who has occasion to compose tracts on Asiatick literature, or to translate from the Asiatick languages, must always find it convenient and sometimes necessary, to express *Arabian*, *Indian*, and *Persian* words or sentences, in the characters generally used among *Europeans* ; and almost every writer in those circumstances has a method of notation peculiar to himself : But none has yet appeared in the form of a complete system, so that each original sound may be rendered invariably by one appropriate symbol, conformably to the natural order of articulation, and with a due regard to the primitive power of the *Roman* alphabet, which modern Europe has in general adopted.” This accomplished scholar then adds—that “ a want of attention to this object has occasioned great confusion in History and Geography ;” and “ that the ancient *Greeks*, who made a voluntary sacrifice of truth to the delicacy of their ears, appear to have altered by design almost all the oriental names, which they introduced into their elegant, but romantick histories ; and even their more modern Geographers, who were too vain, perhaps, of their own language to

learn any other, have so strangely disguised the proper appellations of countries, cities, and rivers in Asia, that, without the guidance of the sagacious and indefatigable *M. D'Anville*, it would have been as troublesome to follow Alexander through the *Panjâb* on the Ptolemaick map of *Agathodæmon*, as actually to travel over the same country in its present state of rudeness and disorder.”*

The inconveniences and confusion, which are here so strikingly described in the case of the *Asiatick* languages, are now beginning to be experienced by writers upon the Languages and History of the *Indian nations of America*. In this latter case, however, we are relieved from one embarrassment, which is felt in the case of the *Asiatick* tongues; for in those, as there is already a written character, and an established alphabetic arrangement of the elementary sounds, which does not in every instance correspond with the order of our Roman alphabet, we experience a constant struggle in the mind, when we attempt to write *Asiatick* words in our letters, arising from that natural desire which we feel to represent each *Asiatick* character by one of our own, which occupies the same place in the alphabetic list. But in the languages of the *American Indians*, we have only to ascertain, in the first place, every elementary sound, and then arrange the letters, by which we may choose to represent those sounds, in the order of our own alphabet.

Until within a few years past, indeed, these neglected dialects, like the devoted race of men, who have spoken them for so many ages, and who have been stripped of almost every fragment of

* Dissertation on the Orthography of Asiatick words in Roman letters; in Sir W. Jones's Works, vol. i. p. 175, 4to edit.; and in the Asiatic Researches, vol. i. p. 1.

their paternal inheritance except their language, have incurred only the contempt of the people of Europe and their descendants on this continent; all of whom, with less justice than is commonly supposed, have proudly boasted of the superiority of their own more cultivated languages as well as more civilized manners. But, at length, in consequence of the impulse originally given by the Empress Catherine of Russia, and subsequently by the illustrious Adelung, Vater, and other German literati, whose indefatigable diligence and zeal will not suffer the remotest corner of the globe nor the most uninviting department of human knowledge to remain unexplored, we are beginning to inquire into the history and character of our degraded fellow-men of this continent, and to investigate the wonderful structure of their various dialects; which, indeed, to the philosophical inquirer, will now perhaps be found to be the most curious and interesting of all the languages of man.*

* My learned friend, Mr. Du Ponceau, first directed my attention to the fact here stated respecting the Empress Catherine; and I am indebted to him for the perusal of that interesting account of the eminent services rendered to literature by this extraordinary princess, entitled "*Catherinens der Grossen Verdienste um die Vergleichende Sprachenkunde*:" which may be rendered, *The Merits of Catherine the Great in promoting the Comparative Science of Languages*. This work was published at St. Petersburg in the year 1815, by the Hon. Frederick Adelung, whom Mr. Du Ponceau, in his *Report on the Indian Languages* (p. xix.) states to be "the nephew and worthy successor of the great Adelung," and "not inferior to his predecessor." The volume contains a particular account of the extensive plan of the Empress, and the measures taken by her to obtain vocabularies of all the languages in the world. She directed her Secretary of State to write to the powers of Europe, Asia, and America; and application was accordingly made to President Washington for our *Indian lan-*

The first fruits of these inquiries in the United States have been the able and philosophical investigations of Mr. Du Ponceau,

guages ; several specimens of which were accordingly furnished. But what will most surprise the reader will be, to learn that the Empress herself actually began the labour of this comparison of languages. In a letter to the celebrated Zimmerman, dated May 9, 1785, she says—" Your letter drew me from the retirement in which I had kept myself for almost nine months, and which it was difficult for me to relinquish. You will hardly suspect what I was employed about in my solitude. I made a list of between two and three hundred radical words of the Russian language, and had them translated into every tongue and jargon that I could hear of ; the number of which already exceeds two hundred. Every day I took one of these words and wrote it down in all the languages I had been able to collect I grew tired of this hobby, as soon as the book upon Solitude was read through. But as I felt some regret at committing to the flames my great mass of papers, and the long hall, which I occupied in my hermitage, was quite warm enough, I requested Professor PALLAS to attend me, and after a full confession of this sin of mine, it was agreed between us that these translations should be printed, and thus made of some use to those persons, who might be willing to occupy themselves with the idle labours of others. We are now only waiting, with that view, for some specimens of the dialects of Eastern Siberia. Whether the reader shall or shall not find in the work, striking facts of various kinds, will depend upon the feelings with which he enters upon the subject, and is a matter of little concern to me."—p. 40. Professor Pallas accordingly informed the public of Her Majesty's intentions ; stating (among other things) that " she had herself made a selection of such words as were the most essential, and generally in use even among the best civilized nations. . . . In that selection the preference was given to substantives and adjectives of the first necessity, and which are common to the most barbarous of languages, or which serve to trace the progress of agriculture or of any arts or elementary knowledge from one people to another. The pronouns, adverbs, and some verbs and numerals, whose great utility in the comparison of languages is acknowledged, were also admitted into the collection, in order to render this Glossary more complete and more instructive."

and the interesting work of his experienced and worthy fellow-labourer, the Rev. Mr. Heckewelder. These publications alone, which are too well known to need a more particular notice in this place, abundantly show, what a vast field is now opening to those who wish to search into the philosophy of language, and to study man through the medium of his noblest and peculiar faculty of speech; and, at the same time that they do honour to our country, they will be read by the scholars of Europe, especially the learned Germans, with all that avidity which the characters of their authors will naturally excite. For my own part, I acknowledge, that they have occasioned my taking a deeper interest in this apparently dry and barren subject, than I could have believed to be possible in any one, however devoted he might be to philological pursuits; and I have, in consequence, been for a time allured from old and favourite studies, to which I had intended to allot the whole of that little leisure which I could spare from the duties of my profession.

At the very commencement of my inquiries, however, I found my progress impeded by a capricious and ever varying *orthography* of the Indian languages, not only among the writers of different nations, but even among those of the same country. I have, therefore, while examining words in one Indian dialect with a view to comparing them with those of another, been obliged to employ much time in first settling the spelling of a *written* word, in order to ascertain the sound of the *spoken* word; when I ought to have found nothing more to be necessary than to make the comparison, which I happened to have in view, between words whose *sounds* should have presented themselves upon the first inspection of their *written characters*. But with the present irregular mode of writing Indian words, unless a reader is conversant with the

several languages of the authors, whose remarks upon the Indian dialects may fall within his observation (which remarks too are often rendered still further unintelligible by being read in a translation) he will be very likely to imagine, that the words of a single dialect, as he sees them written by a German, a Frenchman, or an Englishman, belong to languages as widely different as those of his several authors. When, for example, a mere English reader finds the familiar names of the *Creeks* and the *Choc-taws*, the *Wabash* and the *Washita*, with many others, disguised by the French writers under the strange garb of *Kriques*, and *Tchactas*, *Ouabache* and *Ouachita*, &c. ; and, among the German authors, the letters G, J, T, and Z used to express sounds which we should denote by C, Y, D, and TS, as in the words *Ganata* for *Canada*, *Japewi* for *Yapewi*, *N'mizi* for *N'meetsee*, with innumerable others ; (to say nothing of the totally different sounds from ours usually given by foreign writers to all the vowels of the Roman alphabet)—when a mere English reader, I say, finds the very same words thus variously written, he will at first view suppose that they are the names and languages of so many different tribes of Indians.*

* In addition to these national differences of orthography, the Rev. Mr. Heckewelder (in reply to Mr. Du Ponceau's inquiries respecting the orthography of the *German* writers) mentions a very singular reason for the irregularities observable in their use of the letters *c*, *g*, and *k* : " Sometimes (says he) the letters *c* and *g* are used in writing the Delaware language instead of *k*, to shew that this consonant is not pronounced too hard ; but, in general, *c* and *g* have been used as substitutes for *k*, because our printers had not a sufficient supply of types for that character." *Correspondence of Heckewelder and Du Ponceau*, p. 382. The state of our country at the present day is such, that this will no longer be an apology for the irregularity in question. It may be added, as Mr. Du Ponceau justly remarks in a letter to me, that " a German ear, unless very delicate, does not ordinarily discriminate between *k* or *c* hard, and *g*, between *p* and *b*, nor between *d* and *t*. To a German only would it have occurred, to substitute *g* for *k*."

The perplexity I felt from this uncertainty in our Indian orthography, which so much increases the labour of studies that are in themselves sufficiently dry and forbidding to most persons, led me to consider more particularly than I had ever before done, the expediency of adopting *a uniform orthography* for the Indian, as well as other languages, which have no established written characters; and I now beg leave to submit to the Academy the few reflections which have occurred to me on this subject. Imperfect and little interesting as the remarks may be, they will be received, I have no doubt, with all that candour to which they may be entitled.* They will have produced some good, if they should stimulate any of my countrymen, who have more leisure and more favourable opportunities than fall to my lot, to pursue the inquiry; an inquiry, which, while it promotes the common cause of learning, is peculiarly within the province of American scholars, and will richly reward us in the honour we shall acquire with the learned of Europe; who, it should be remembered, have a right to expect from us, and are eagerly looking for every species of information respecting this continent.

Nor will discussions relative to the languages of the American Indians be among the least interesting which we can offer to Europeans, or the least important in themselves. For, if the origin of the population of this Continent is, as all admit, a most interesting and important question; and if we can more successfully arrive at the solution of it, by tracing the progress of the various nations of men over different regions of the globe, through the

* Those, who are acquainted with Mr. Du Ponceau's Essay on English Phonology (and no scholar in our country is ignorant of that valuable publication) will perceive, that the present paper is only an application of the general principles which are there stated, to the class of the *Indian Languages*.

medium of their languages, than in any other manner (which every day's experience renders more and more probable); then it is undeniable, that a careful inquiry into the languages of a people, who were formerly the possessors of one entire hemisphere, is a subject of great moment to the inhabitants of the old as well as the new world. And, as naturalists are now investigating the structure and history of the globe itself, by collecting fragments of the component parts, from the summits of its mountains to the depths of its seas, so we must study the constitution and history of its possessor, man, by collecting specimens of him, especially of his distinguishing characteristick, language, from the most remote and barbarous, as well as the most refined portions of the race; specimens, which, indeed, with our present limited knowledge, seem to be dispersed over the earth in as extraordinary a manner, and in situations where we should as little expect to find them, as the fragments of animal and vegetable nature which we meet with in the recesses of the earth. For, as we find the productions of the ocean upon the heights of our mountains, so we discover, for example, fragments of the remote Asiatick languages imbedded, if I may use the expression, in those of the most distant extremities of Europe; as of the Sanscrit in the Russian* and other western tongues; and sometimes we find an entire language spoken by a small body of people in the midst of various others, yet totally distinct in all respects (so far as we are yet informed) from the languages by which it is thus surrounded; as in the case of the Basque language in Spain, which, as philologists inform us, has no perceptible affinity with any of the neighbouring European tongues.†

* *Rapports entre la langue Sanscrit et la langue Russe.* Petersburg, 1811.

† See Mr. Du Ponceau's Report on the Indian Languages, p. xxxix.

But, in order that we may successfully penetrate into this unexplored region of languages as barbarous and foreign to our modes of thinking, as the manners of the uncivilized people who use them, it is indispensable that we should adopt every practicable expedient to render our progress easy and pleasant. Now nothing is more clearly necessary at the very beginning, than some *common and systematic method of writing them*; whether our object is, to enable the learned of other countries and our own to study and compare the numerous varieties of human speech with all that exactness, which is essential to accurate and useful results, or whether we confine ourselves to the more practical purpose of possessing the means of communication with the various tribes on our borders, either with a view to the common concerns of life or the diffusion of the principles of our religion among them; and any investigation, which is so intimately connected as this with results of such importance, will not be thought unworthy of the attention of our countrymen. Nor will they, I trust, need further incitement to prosecute any inquiries whatever, minute as they may at first view appear, to which men of so much distinction in the literary world, as Count Volney among the French and the incomparable Sir William Jones among the English, have given importance and dignity by their laborious and learned researches.*

* Count Volney's elaborate work, entitled *L'Alphabet Européen appliqué aux Langues Asiatiques*, 8vo. pp. 223 (for the use of which I have been indebted to Mr. Du Ponceau since this paper was first communicated to the Academy) was published at Paris in 1819. The Dissertation of Sir William Jones, which I have already quoted, is well known to every scholar.

As various nations of Europe have already published and will continue to publish books respecting the American Indians and their languages, either with a view to the information of the learned or to the propagation of the Christian religion, it is extremely desirable, that such a *common orthography* as I have mentioned should be adopted. This would enable foreigners to use *our* books without difficulty, and, on the other hand, make theirs easy of access to us; and it would also enable the missionaries of our own and other countries (the benevolent Germans, for example, who have been so long engaged in this duty) to cooperate with the more effect in the great object of their common labours. So far too as the study of philology alone is concerned, we should derive the important advantage of being enabled to discover at once by the eye, etymologies and affinities in the Indian dialects, which with our present orthography are only discernible by the ear.

Now what are called *vowel* sounds constitute an important part of the *Indian*, as well as other languages. In *English* each of the vowels, according to its place in a word, may represent sounds, which are totally different from each other; and, on the other hand, we often represent one single sound by very different vowels, either taken by themselves or in combination with other letters. Our first vowel *a*, for example, is commonly said to have no less than four distinct powers, which are exemplified in the words, *fall*, *far*, *fat*, *fate*; and therefore, if we should meet with the like number of *Indian* words, in which this vowel was under the same combinations as in these *English* examples, we should naturally pronounce this single letter *a* (which ought to be the representative of only one sound) in four different ways. This change of power in the vowels, it is well known, does not

take place in the languages of the continental nations of Europe ; but all those nations (I speak in general terms, without noticing the common distinctions of acute, grave, and circumflex accents, and other slight modifications of the fundamental sounds) preserve what may be called, in a general view of the subject, a uniform pronunciation of the vowels ; a pronunciation, which is generally supposed to have been handed down to our own times, in conjunction with the letters themselves, from the Romans. I have always thought, therefore, that it would be best to adopt as the *basis* of our Indian orthography, what we call the *foreign* sounds of all the vowels ; that is, the sounds which are usually given to them by those European nations, with whom we have much intercourse by books or otherwise, and who, like ourselves, use the *Roman* alphabet in their own languages. I speak with these limitations, because my object is merely *practical* ; and, for all practical purposes, it will for some time to come be best to confine our views to the family of nations I have here mentioned, and to adopt an *orthography*, which, though it may not be philosophically exact, shall be attended with the least embarrassment to them and ourselves in the common use of it. We can hereafter either modify that orthography, or adopt a new one, as our extended intercourse with other families of nations may be found to require.

In conformity with this view of the subject, the general pronunciation of the vowels will be as follows :

a as in *father*

e as in *there*

i as in *machine* (or like *ee*)

o as in *note*

u as in *rule*

y as in *you* (or like *ee*.)

Our letter *w* may also be advantageously employed, instead of the single *u*, at the beginning of certain syllables which we should otherwise write with *oo*; for, if the combination *oo* should happen to precede or follow a single *o*, thus *oo-o* or *o-oo* (for *wo* or *ow*) it makes a very awkward and inconvenient orthography; and if the *oo* should precede or follow another combination of the same kind, thus *oo-oo* (for *wu*) the inconvenience is still more palpable. Our venerable *Eliot*, whose memory will ever be revered by scholars as well as by the friends of religion, both in his *Indian Grammar* and his *Translation of the Bible*, used a character composed of two *o*'s closely united thus (∞) resembling the figure 8 laid horizontally. This character answers extremely well; but as the simple *u* or *w* would always supply its place, and as both of these are familiar to the different nations of Europe, I have thought we might dispense with the character devised by Eliot. The Jesuit missionaries formerly taught their converts to denote this sound by the Greek character σ ; and this is accordingly used throughout *Father Rale's MS. Dictionary* of the Norridgwock, or rather Abnaki, language, now preserved in the Library of our University in Cambridge. But, for the reasons before mentioned, I think that neither this nor Eliot's character will be found necessary.*

Such, I have observed, should be the *basis* of our Indian orthography. Any modifications of these fundamental sounds, which may be discovered in the different Indian languages, may be indicated by some diacritical marks placed above or below the letter which is employed to denote the fundamental or principal sound. For this purpose I should choose, if practicable, to adopt some other marks than the common signs of accent and quantity;

* See an account of this valuable MS. in the Appendix to the present paper.

because these signs have been so long employed to denote the usual, though vague distinctions of *grave*, *acute* and *circumflex* accents, and *long* and *short* syllables, that they would perpetually mislead readers of every nation; besides, it may be found useful to reserve them, to be placed over those syllables which in English we call *accented*, in order to denote that part of a word, upon which the greatest force, or stress of the voice falls in pronunciation.*

The elegant scholar, with whose remarks I have introduced this subject, and from whose well-considered opinions no man should dissent without great hesitation, after observing, that "our English alphabet and orthography are disgracefully and almost ridiculously imperfect," recommends, for the purpose of denoting modifications of this kind, the adoption of "some of the marks used in our treatises on fluxions;" and accordingly in his notation of Asiatick words, he makes use of either one, two, or three points placed over the letters, thus, *z*, *ż*, *z̈*.† This notation has the

* Eliot employed two of the accents in the following manner: "We use," says he, "only two Accents, and but sometime. The *acute* (') to shew which syllable is first *produced* in pronouncing of the word; which, if it be not attended to, no nation can understand their own language; as appeareth by the witty conceit of the *Tityre tu's*: *ó* produced with the accent is a regular distinction betwixt the first and second persons plural of the Suppositive Mode; as

Naumog, if we see (as in *Log*)

Naumóg, if ye see (as in *Vogue*.)

The other accent is (^) which I call *nasal*; and it is used only upon (*ó*) when it is sounded in the nose, as oft it is; or upon (*â*) for the like cause." *Indian Grammar*, p. 3. These *nasal* sounds may be more conveniently designated in the manner adopted in the *Polish* language, which will be mentioned in a subsequent part of this paper.

† Dissertation, in Jones' Works, vol. i. p. 186.

manifest advantage of great simplicity ; but on the other hand it should be considered, that these points are extremely subject to being wholly overlooked or confounded with each other both in writing and printing ; and, in the science of mathematics, from which the learned author borrows them, it is a well known fact, that those treatises on fluxions, where this method is followed, abound in errors beyond all comparison more than those, in which the French notation by *letters* instead of points is adopted.* For this reason, therefore, marks of that kind should be used as sparingly as possible. We might, perhaps, conveniently enough designate the modified vowel by placing a small *letter* over it, as is done in the German language, where, for example, the vowel *a*, (which commonly has a sound like *ah* in English) if it has a small *e* over it (*ä*) takes a sound like *a* in fate ; and the vowel *o* with a small *e* over it (*ö*) loses its usual sound and takes one resembling the French *eu*. It is true, that the Germans also use two points (thus *ü*, *ö*,) to denote these modifications ; but these have been so long and so generally employed in ancient and modern languages as a *dieresis*, that it does not appear advisable now to apply them to a new use. If *points* are employed at all, it would be better to place them perpendicularly over the vowel (thus *â*) and not horizontally. But perhaps the most intelligible and least ambiguous notation would be found upon experiment to be, such as is adopted in the pronouncing dictionaries of our own language, that is, the common numerals ; instead, however, of placing them *over* the letter, as is there done, it will be better to place them *under* it ; as the room above will be wanted for the

* The learned De Sacy observes, too, that in *Arabic* the *و* (with two points) and the *و* (with three) are often confounded in the Manuscripts. See his *Arab. Gram.* vol. i. p. 18—19.

accents and marks of quantity. But, whatever mode is adopted, an explanation should be given of it, by reference to one or more of the European languages, in a *Table* or *Key*, which ought, for the present at least, to accompany all publications in the Indian languages.*

There is, however, one class of sounds in some, if not in all the Indian dialects, I mean the *nasal* sounds, for which it seems absolutely necessary to introduce a new character; though it is always extremely desirable to avoid having recourse to this dangerous expedient in any alphabetic notation, which, like the present, is intended for a *practical* system. In those European languages with which we are most familiar, such nasal modifications are commonly denoted by subjoining certain consonants to the vowels thus modified; as *n* or *m* in the French language and some others; *ng* in the German and our own language. But nothing would be gained by adopting this method for the Indian

* In *Pryce's* Cornish Grammar and Vocabulary, published in the year 1790, a different expedient from any above proposed is resorted to; that is, turning the letters upside down. Thus, the vowel A in its natural position is sounded as in *man*, but when inverted (v) it is to be sounded as in *fall*. This method, which does not seem to be a very eligible one, has been followed to a considerable extent in the TSVLVKI SQCLC CLV, or Cherokee Spelling Book, published by the Rev. Mr. Butrick, (the respectable missionary among the Cherokees) and his young assistant, Mr. D. Brown, who is one of that nation, and with whom I have had opportunities of conversing upon the subject of his language. I will here remark, by the way, as the name of this nation has been variously written, *Cherokee*, *Cheerakee*, *Chelokee*, &c. that Mr. Brown stated the true name to be, (as we should write it in English) *Tsuh-luh-kee'*, sounding the *u* as in *but* and throwing the accent upon the last syllable; and so it is to be pronounced according to the orthography used in the title of the Spelling Book above quoted. The corruption of *ts* into *tsh* (or our *ch*) is very common in the attempts to write Indian words.

languages, in which we have it in our power to establish a new notation that shall be *systematic*, so far as may be consistent with convenience in practice; because, if we apply those consonants, *n*, *m*, or any others, which already have certain established powers in the alphabet, to this new use of indicating nasal sounds, we shall then be obliged to affix to them a sign of some sort to point out when they do not indicate such sounds; or, in other words, to show when they retain what we now call their usual powers. In the *Polish* language these nasal vowels are designated by the little mark, called in some of the foreign languages a *cedilla*, which is placed under them thus, *a*, *e*, *i*, *o*, *u*; and Mr. Du Ponceau, to whom I am indebted for this and many other valuable suggestions, observes in a letter to me, that no other method has occurred to him, which would in practice be found so convenient as this for the proposed *Indian* alphabet; an opinion, in which every man, who has weighed the various difficulties in this case, will fully concur.* I will only add on this part of the subject, that it will be found best in practice to

* In printing-offices where types cannot at present be had for this purpose, the nasal vowel may be printed as it is in Volney's work, p. 59, with an inverted comma subjoined to it, thus, *a*, *e*, *i*, *o*, *u*. But as this may occasion a division of the syllables of a word (which should be avoided) new types ought to be made for the nasal vowels. In respect to the division of syllables I will here add a remark from one of Mr. Du Ponceau's letters to me: "The makers of Indian Vocabularies are in the habit of *dividing their syllables*, as in the Spelling Book. This is awkward and inconvenient, and will be useless on the principle of the new alphabet." This remark, occurring thus early, may require a short explanation. The method of *dividing* the syllables will become unnecessary, because in the proposed alphabet every letter is to have a fixed and invariable sound, however it may be combined with others; and in *spelling*, every syllable, except final ones, will end with a vowel.

place these, and any other distinctive marks of this sort, *under* the letters; because the room above, as I have before observed, will be wanted for the marks of accent and quantity.*

DIPHTHONGS.

The mode of writing the diphthongs, which would naturally follow that of the vowels, will need but a few remarks; for, as the diphthongs will be compounded of the several vowels whose powers have already been under consideration, ~~and~~ those writers

* Mr. Du Ponceau has suggested to me a method of indicating accent and quantity, in a manner which is at once simple and ingenious. He proposes, that *long* accented syllables should be marked with the *grave* accent, and *short* accented ones with the *acute*. “*Unaccented syllables*,” he adds, “need no mark, being generally short.” This method would be attended with no difficulty in the application, were it not for the different ideas, which different persons may affix to the terms *long* and *short* in this case. We say in English, for example, that *i* in the word *pine* is *long*, but that in *pin* it is *short*. This, to an Italian, French, or other foreign scholar, would be an absurdity; because it would be equivalent to saying, that the sound of our word *aye* and of our letter *e* (for so they would pronounce *i* in *pine* and *i* in *pin*) are the *long* and *short* of the same vocal sound; when too, as our own grammarians begin to admit, the letter *i* in the former case is a *diphthong*, and in the latter, a *vowel*. Yet, absurd as this appears, we see it carried into our methods of instruction in Latin and Greek, as well as in English. No person, however, who has given the least attention to those foreign languages, which are the most legitimate descendants from the Latin (that is, the Italian, Spanish and Portuguese) or in short, to any of the Continental languages of Europe, will suppose for a moment, that the distinction of *long* and *short* in the ancient languages was like the distinction which we make in English, in the case of the *i* and some other vowels. But this is not the place for discussing a subject, which will more properly belong to a communication on the Accents of the Greek language, which I hope to make to the Academy on a future occasion.

of the Indian languages, who may adopt the proposed orthography of the vowels, will find no difficulty in combining these in such a manner as to constitute the required diphthongs. It may not, however, be without use to observe, that there are in some of the Indian dialects diphthongal sounds, which we are accustomed to denote in English by single letters. I have found, for example, and much to my surprise, by conversation with the young Cherokee mentioned in a preceding note, that in the language of that nation they have the diphthongal sound of the long *i* in our word *pine*, and of the long *u* in our word *pure*; both of which are at length admitted to be diphthongs by some of our own grammarians, as they have always been treated by the *Continental* nations of Europe, who generally denote the first of them by *ai* and the other by *iu* or *iou*; the sounds of which may be expressed in English by *ah-ee* and *ee-oo*, pronouncing the two parts of these words as closely together as possible.

To express these diphthongal sounds, therefore, which, like the vowels, will probably in some dialects be found to be more close, and in others more open, we cannot do better than to adopt the European *ai* and *iu*; to which we may add *yu*, to be used at the beginning of words, for the reasons which will be mentioned in considering the combinations *Li* and *Ly*, under the letter *L*.

We shall also want a character for the diphthong which we denote in English by *ou* in *our*, and *ow* in *now*. Either of our modes of writing this diphthong would be ambiguous to the people of Europe; for they would in general pronounce both of them like *oo* in English. Now those nations in their own languages would express this diphthong by *au* (except that the French would write it *aou*); and as this orthography would naturally follow from the sounds to be denoted by the two

component vowels *a* and *u*, there seems to be every reason, which practical convenience could suggest, for relinquishing our own *ou* and *ow*, and adopting *au* in common with those nations.

It need hardly be observed here, that if it should be found requisite in any Indian words, to mark very distinctly the separate powers of the two component letters in the *ai*, *iu* and *au*, and thus in effect dissolve the diphthong, it may be done by means of the common *diæresis*.

CONSONANTS.

B.

The letter *B* may have the power which it generally has in the European languages and in our own.

C.

The letter *C* may be entirely dispensed with, on account of its very changeable power in the European languages, and because its two most common sounds may be perfectly expressed by *K* and by *S*. Our venerable Eliot says of it—"We lay by the letter *C*, saving in *CH*, of which there is frequent use in the language."* But, for the *CH*, it will be found advisable that we should substitute another notation, which will be mentioned in its place under the letter *T*.

D ; DH ; DS or DZ ; and DJ, DSH or DZH.

The letter *D*, when single, may have its usual power.

Dh may be conveniently used to denote what Walker calls in English the *flat* sound of *th* ; that is, the sound which *th* has in

* Indian Gram. p. 2.

our words *this, that, &c.* and for which our Saxon ancestors had an appropriate character, but for want of which we should be obliged to write the same words, *dhis, dhat &c.**

Ds or *Dz* will probably be wanted in some cases, to denote the *flat* sounds corresponding to *ts*; which last is very common in the Indian languages (though often corrupted into our *ch*) and is expressed by the *German* writers by a simple *Z*; a letter which in their own language, as is well known, has the power of *ts* or *tz* in English.

Dj, Dsh or *Dzh* may be employed to express the sound of our *J*; which, for the reasons that will be given under that letter, it seems necessary to reject from the proposed system of orthography.

* The *flat* sound of *th*. Nothing can be more unsettled and imperfect than our technical language in Grammar and Rhetoric; and this circumstance has much retarded the progress of accurate investigation in those two branches of our studies. So far as respects *sounds*, we cannot do better than to borrow terms from *Music*, which is the Science of sounds; and I have accordingly used the terms *flat* and *sharp* (or *grave* and *acute*) which I believe were first employed systematically in Walker's Pronouncing Dictionary, to designate the two classes of consonants often called mutes and semi-mutes, as *b, d, v*, and *p, t, f, &c.* Mr. Du Ponceau observes, that this distinction may be as good as any other; but he suggests, whether that of *inspires* and *expires* would not be preferable; applying the former of these terms to the *flat* consonants, and the latter to the *sharp* ones; so that *B* will be called an *inspire*, and *P*, an *expire*, &c. He is of opinion that "in pronouncing these two classes of letters, the organ in the one case expels the breath, and in the other draws it in....The *expiration*, in *t, th, f, p, &c.* (he remarks) is clearly and strongly to be perceived; the *inspiration* in their correlatives, perhaps not quite so much. To me it seems, that when you say *thunder*, you push the air out, when you say *that*, you draw or keep the air in as much as is possible in uttering a consonant."

F.

The letter *F*, whenever it shall be wanted, will have its usual power. But probably there will not be much use for it in many of the Indian dialects; for Mr. Heckewelder observes of the *Delaware* language, which is the basis of many others, that it has "no such consonants as the German *w*, or English *v*, *F*, or *r*."*

G, GH, GS.

The letter *G*, whatever vowel may happen to follow it, should invariably have the sound, which we call in English its *hard* sound; and which it generally has before *a*, *o* and *u*, in the European languages as well as our own. This power of *G* is commonly traced back no farther than the times of our Saxon ancestors; but scholars have supposed, and upon no slight grounds, that this was also its common sound, or a very near approximation to its common sound among the Romans, when it was followed by either of the vowels.

Gh may be used to denote the *flat* guttural of the Irish, which is the corresponding sound to the *sharp* guttural, or German *ch*; which last I should prefer designating by *kh*, as Sir William Jones recommends in the Oriental languages, and as will presently be more particularly considered under the letter *K*.

Gs will be wanted to denote the *flat* sound of *x*, in our word *example* and other words of that form, where the letter *X* precedes the accented syllable; as *ks* will be wanted to express the *sharp* sound which *x* has in our word *exercise* and in certain others which have the *X* in the accented syllable.

* Correspondence with Mr. Du Ponceau, p. 396. See also the *Note* on the letter *W* in the present communication.

H, HW.

H, either when single or in combination with others, may perform its usual office of an aspirate.

Hw will be wanted for the purpose of denoting the sound which in English we now express by *wh*, as in *what*, *when*, &c., though our Saxon ancestors used to put the *h* before the *w*, and wrote the same words *hwæt*, *hwænne*. The Swedes also (as Mr. Du Ponceau remarks in one of his letters to me) formerly used *hw* and *hu*; but at the present day, they as well as the Danes use *hv*.

J.

The use of the letter *J* is attended with more difficulty than any of the preceding consonants. A *German* or an *Italian* would inevitably give it the sound of our *y*.* a *Frenchman* or a *Portuguese*, that of *zh* (or *s* in our word *pleasure*;) while a *Spaniard* would give it the strong guttural sound well known in his language. Under these circumstances, therefore, although it is extremely desirable to have *single letters* to represent *single sounds* (as we generally denominate them) yet it appears to me better on the whole to reject the letter *J*, and instead of it to adopt a combination of letters, which shall be in analogy with the common sound of our *ch* (*tsh*), which is the corresponding *sharp* sound to that of *J*. As, therefore, I shall presently propose to denote our *ch* by *tsh*, so in the present case I would supply the place of our *J*, by *dsh* or *dzh*; or, if it should be thought best, in a *practical* alphabet, to sacrifice analogy to simplicity, we might

* Mr. Heckewelder very judiciously employs the *y* instead of *j*, which Mr. Zeisberger and the other German Missionaries always make use of. See his *Correspondence with Mr. Du Ponceau*, p. 383.

express this sound by *dj* or *dg*, as the French commonly do in writing foreign words. In the *Malay Bible and Testament*, printed by the Dutch in 1733 (the latter of which was reprinted by the English in 1818) the Dutch have adopted a character compounded of *D* and *J* closely united thus, *DJ*, *dj*, which would be preferable to *dg*; but in that case, again, if we strictly regarded analogy, we should express *ch* by *tj*, as the Dutch have done in that work. This would be a little awkward to us and not free from ambiguity; as, for example, in the name of the place where the English edition of this Malay Testament was reprinted, and which is expressed conformably to the above notation thus, *Tjalsi*, (to be sounded as if written *Tjelsi*) we should not immediately discover the plain English name, *Chelsea*.

In the case of this, as well as other letters of the alphabet, it will not be overlooked, that one advantage of having characters, which shall be in analogy with each other, is, that they will immediately point out to the eye many affinities, which under an irregular orthography are discoverable only by the ear; and, perhaps, in the present instance the character *dj*, which is less cumbrous than *dsh* or *dzh*, will sufficiently resemble *tsh* to answer that purpose.

K, KH, KS.

K, when single, may preserve its usual power, which is familiarly known to the European nations, though the letter itself is not used in all their alphabets.

Kh may be used to denote the *sharp* guttural, which the Germans express by *ch* and the Greeks by χ ; while the corresponding *flat* guttural, as before observed, may be denoted by *gh*.

The combination *kh* is to be preferred to *ch*, because the latter would be ambiguous to Europeans in general, as well as to ourselves; for though the *Germans* would give *ch* the intended guttural sound, a *Frenchman* would pronounce it like our *sh*, and we should ourselves be in doubt whether to pronounce it like *tsh* or like *k*; while a *Spaniard* would give it the sound of *tsh*, and an *Italian*, the common unaspirated sound of *k*.

Îs will be necessary, to denote the *sharp* sound which *æ* has in the word *exercise* and many others.

L; and LY or LI.

The letter *L*, whether single or double, may retain its usual power.

Ly or *Li* may be found useful, to express the *liquid* sound of *L*, as it is called, which is heard in the foreign words *seraglio*, *intaglio*, &c. and is observable in our English word *steelyard* and some others; which, if we divide thus, *stee-lyard*, the last syllable will give us this common foreign sound with the greatest exactness. The French express the same sound by *ll* after *i*; the Italians, by *gl* before *i*; the Spaniards, by *ll*, and the Portuguese, by *lh*. But either *ly* or *li* will, I think, be attended with fewer difficulties in practice, than any of the combinations above mentioned, in a system of orthography which is to be used in common by several European nations and ourselves; and of these two, *li* and *ly*, we should ourselves in most cases, especially at the beginning of a word, give the preference to *ly*; though to foreigners, it would be a matter of indifference which of them should be adopted. It may be thought indeed, that there is no necessity for both of them; and, strictly speaking, perhaps, there is not any more than there is for retaining both of

the single letters, *i* and *y*, among the vowels and diphthongs. Yet we have ourselves been so much accustomed to the use of *y*, instead of *i*, before the other vowels, and particularly in the beginning of words and before the letter *i* itself, (where we could not without doing great violence to our habits employ the *i*,) that it seems advisable to retain *i* and *y*, and for the like reasons, the *li* and *ly*. This will also be in conformity with the actual practice of the German missionaries, who use both their *i* and their *j* (which last is equivalent to our *y*) in writing Indian words.*

M.

The letter *M* will have its usual power, which is, practically speaking, the same in the European languages in general.†

* Perhaps it will not be found necessary to adopt any character to express the liquid *l* (or *l mouillée*;) for Mr. Du Ponceau informs me, that he has not yet met with this sound in any of the Indian languages examined by him. I once thought of using the Spanish *ll* for this sound; but upon Mr. Du Ponceau's suggestion, that there might in some Indian words be occasion to express a full and distinct sound of two *l*'s following each other, as in the Italian words, *bel-la*, *stel-la*, I abandoned it. In our own language we are not in general sensible of any difference between two *l*'s and one; but if we take a word in which the second *l* is under the accent, as in *illegal*, *illustrate*, &c. or if we pronounce two words together, the first of which ends, and the second begins, with *l*, as in *full length*, *well looking*, &c. the difference becomes more perceptible.

† The Portuguese final *m* and the French *m* and *n*, which are nasal (or the signs of a nasal sound in the vowel annexed to them) need not, in this general view, be considered as exceptions.

N ; and NY or NI.

N may also retain its usual power, which (as was observed in the case of *M*) is the same in the European languages generally.*

Ny or *ni* may be wanted to express the sound of *gn* in the foreign words *bagnio*, *seignior*, and which we hear in our words *convenient*, *minion*, *whinyard*, the proper name *Bunyan*, &c. The Spaniards, as is well known, have an appropriate letter for it in their alphabet, being an *n* with a mark over it, thus, *ñ* ; the Portuguese denote it by *nh*, and the Italians by *gn*. But for similar reasons to those mentioned in the case of the *ly*, I think we shall find *ny* more convenient in practice than either of these.†

P.

The letter *P* may have its usual power.

Q.

This letter may be entirely dispensed with ; as its place may be perfectly supplied by *K*. Some writers have used *Q* alone in writing Indian words to express the sound of *qu* or *qw* ; but *kw* would, I think, be far preferable in every point of view. If the *Q* is preserved in any Indian alphabet, it may be applied to designate some uncommon modification of its usual sound ; and such modification should be indicated by some mark affixed to the letter.

* See note † on the preceding page.

† Mr. Du Ponceau tells me that this *liquid n* (or *ny*) is found in the *Caribbee* language.

R.

R may preserve its common sound, which is fundamentally the same in the European languages, though uttered with very different degrees of force, or roughness, by different nations.

S, SH.

S should always have its common sibilant power, and never be pronounced like *Z*.

Sh will be wanted, and appears to me preferable to the combinations of letters now used by some European nations, to denote that sound which we always express by *sh*, and which is common to our own and many other languages in various parts of the globe. The *French* express it by *ch*, which we have retained in the word *chaise*, and others borrowed from them. But the use of *ch*, in the Indian languages, would mislead readers of different nations; for a *German* would pronounce it as a guttural (like *kh*), an *Italian* like *k*, a *Spaniard* like *tsh*, &c. The *Germans* denote this sound of our *sh* by *sch*; which combination, besides being incumbered with one more letter than our *sh*, would indubitably mislead an *Italian*, and an *Englishman*, and perhaps readers of some other nations; for an *Italian* and an *Englishman* would pronounce *sch* like *sk* instead of *sh*. It is, doubtless, in consequence of this ambiguity in the *sch*, that we so often hear the name of that northern region, which is commonly written *Kamtschatka*, corruptly pronounced *Kam-skatka*, instead of *Kam-tchatka*, (or *Kams-tchatka*, as we ought to call it, if we wish to come as near to the *Russian* pronunciation as our organs will permit, without an unnatural effort;) for, as we borrow the orthography of this name from the *Germans*, through whose works we principally derive our information of that

country and who write it *Kamtschatka*, (with *sch*) we naturally pronounce the letters *sch* like *sk*, according to the general analogy of our own language.* Our *sh*, then, being more simple in itself than the German *sch*, yet sufficiently near to that as well as to the French *ch*, to indicate its power in most cases, and being also an unusual combination in the European languages, would be free from the ambiguity attending the German *sch*, and not so likely to mislead readers of different nations.

The corresponding flat sound to *sh*, that is, our *s* in the word *pleasure* (or *j* in French,) may be denoted by *zh*, as will be noticed under the letter *Z*.†

T ; TH ; TS and TZ ; TSH.

The letter *T*, when single, will have its common power. It will also be used in the three following combinations :

The first of them, *th*, is always called in foreign grammars the *English TH*, and is now well understood and used by the nations of Europe, when they wish to express that sharp lisping sound which it has in our word *thin*, *thick*, &c. and which is

* This name in the Russian language (as Mr. Du Ponceau observes) is written **KAMUJAKA**, the fourth letter of which is equivalent to *shitsh* in English. We ought, therefore, in strictness to write and pronounce it *Kamshtshatka*; which, if we follow the Russian letters, would in spelling be divided thus, *Kam-shhtshatka*; but to make it more intelligible in English, we might write and divide thus, *Kamsh-chatka*. In our pronunciation, however, this is generally softened either into *Kums-tshatka*, or *Kam-tshatka*.

† There would be a convenience in having these compounded characters, *sh*, *zh* and others, printed in one character, as our *sh* always used to be; and if new types are made, it may be well to attend to this point. In our own and other languages, however, no great inconvenience is felt from the use of separate letters.

supposed to have been the ancient, as it is the modern, sound of the Greek *theta*. The corresponding *flat* sound (which is heard in our words, *this*, *that*, &c.) should be expressed by *dh*, as I have observed under the letter *D*.

The second is *ts*; which, being formed of two letters whose powers may be called invariable, will never be ambiguous. This will be much preferable to the German *Z*, which has the power of *ts* or *tz*, but which most nations would pronounce in their own languages as we do in ours, and would therefore be misled in the pronunciation of Indian words, where this letter occurs. Thus, for example, if a Frenchman and an Englishman should happen to meet with the expression in the Delaware language, which a German would write *n'mizi* (I eat) the former of them would pronounce it *n'meezee*, and the other, *n'mizi*, (sounding the *i* as in *pine*,) both of which would be unintelligible to an Indian of that tribe; while the German alone would pronounce it correctly, as we should write it in our English manner, *n'meezee*.

I have here spoken only of *ts* as a substitute for the German *z*; but *tz* may perhaps be required to express a slight modification of this fundamental sound, which may probably be observed in some particular dialects, or in different words of the same dialect. The acquisition of this and numberless other delicate distinctions of fundamental sounds, which may be perceived in the various Indian dialects, and the establishing of distinct characters for them, must, if practicable at all, be the result of long and careful observation on the part of those, who may be called to reside among the different tribes.

The remaining combination, *tsh*, may be employed to denote the sound of our *ch* (in *chair*, *chain*, &c.) which the French

would express by *tch* and the Germans by *tsch*. It would be desirable, it is true, to have a character of greater simplicity than these three letters make, and on that account our *ch* would be preferable to *tsh*; but for the reasons before given (under *lh*) it would not be expedient to adopt it. The Russians in their copious alphabet are fortunate in having a single character to denote this sound, as we have in our *J*, for the corresponding flat one; they would express our *ch* by *Ч*, which resembles our *h* inverted; and if there was as much literary intercourse with the Russians, as with the Germans and other people of Europe, and the rest of the proposed alphabet was common to them and other nations, it might be found advisable to add to it this very useful Russian character.

V.

The letter *V*, whenever it shall be wanted, will have the usual power. But probably there will not be much use for it in many of the Indian dialects, for the reasons given under the letter *F*.

W. .

This letter has been already considered in the remarks upon the vowels, at page 330.*

* In the *Delaware* language, (as the Rev. Mr. Heckewelder observes,) where the letter *W* "is placed before a vowel, it sounds the same as in English; before a consonant it represents a *whistled* sound, of which I cannot well give you an idea on paper, &c. See his *Correspondence with Mr. Du Ponceau*, p. 396.

Mr. Du Ponceau, in a letter to me, says upon this point—"I have analysed the whistling *W* of the *Delawares*. It is nothing more than our *oo* consonant, *w* or *wh*, in *well*, *what*. The *Delawares* pronounce it immediately before a consonant without an intervening vowel; which habit enables them to do, while

X.

X is altogether unnecessary, as its two common powers may be expressed by *ks* and *gs*; and if the *x* itself should be adopted, it would be quite uncertain, both to ourselves and to readers of some other nations, which of the two sounds here mentioned was intended by it; besides which, a Spaniard would be in doubt whether to give it the first of the two sounds here mentioned, or the guttural one which the *x* has in his own language; while a Portugeuze would pronounce it like our *sh*, which is its common power in his alphabet.

Y.

For the use of this letter, see the remarks upon the vowels, at page 329.

Z, ZH.

The letter *Z*, when single, will have the power it has in *French*, *English* and some other languages. In this case, however, it will be necessary for the Germans and Italians to relinquish their peculiar pronunciation of it, and to adopt the substitutes proposed in the preceding remarks; that is, *ts*, *tz*, *ds* or *dz*, as the case may be found to require in the different dialects.

Zh will serve to designate the corresponding *flat* sound to *sh*; that is, the sound of the French *J*, which is equivalent to our *s* in the word *pleasure*.

we cannot, unless practice has made it familiar to us; as it has to me. Take the word *wet*, you pronounce it easily; transpose the vowel and write it *ute*, a Delaware will pronounce it with the same ease; when we cannot. Try a Frenchman at pronouncing this hemistich out of *Paradise Lost*—*Heav'n's last best gift*; he will be as much embarrassed with the *vnsl*, the *stb*, and the *stg*, (which habit makes us pronounce with great rapidity and ease) as we are with the *ut* of the Delawares."

The whole Alphabet, then, of the proposed systematic Orthography, that is, the *basis* or *fundamental characters* of it, will be as represented in the following *Table* ; in which the several characters are arranged according to our common alphabetical order, without any attempt being made to class the *sounds* according to their organic formation ; because, useful and necessary as this would be in a philosophical investigation of the affinities of those sounds, it would not be attended with any important advantage in an alphabet, like the present, designed merely for practical use. When we are searching for a word in a dictionary, whether of the Indian or any other language, we naturally look for the *written sign* in the place where it ought to stand according to the arrangement of our own alphabet.

I may here add, what I wish to be distinctly understood, that, as it never was my plan to give a *universal* alphabet on strict philosophical principles for the use of the learned, but merely a *practical* one, to be applied to the Indian languages of North America, so I have intentionally omitted many sounds, which occur in the languages of Europe and other parts of the world, and numerous modifications of greater or less delicacy in some of the fundamental sounds which have come under my notice. Among such omitted sounds might be mentioned the various slight differences (to an unpractised ear often imperceptible) in the French *e* and other vowels, depending upon the accent affixed to them, and about which, indeed, their own writers have differed, as our own do in respect to the nicer distinctions of English pronunciation—the French *u* (German *ü*, Danish and Swedish *y*)—the French *eu* or *oeu* (German and Swedish *ö* or *ø*, Danish *ø*) &c. ; to which might be added the Polish *l barrée* $\frac{1}{2}$ or crossed *l*) which, as Mr. Du Ponceau remarks, is found in

the *Caribbee* language, and to pronounce which we must place the tongue as far back as possible on the roof of the mouth and articulate *l*. But to have overcharged the proposed alphabet with a great many niceties of this kind, (if it had been in my power to represent them all with exactness) would have had a tendency to frustrate the very object I had in view; that is, a *practical* system of orthography. In such a system, an *approximation* is all that we can expect, and perhaps all that is at present necessary in our inquiries. If the alphabet here given shall prove to be sufficiently well adapted to the purpose of denoting what may be called *fundamental* sounds of the principal Indian languages, it will not be difficult hereafter, gradually to make provision for such signs as experience may suggest, in order to designate all the delicate modifications of speech, which the nicest ear shall be able to discover in the different dialects. But *new signs* should be introduced with the greatest caution, lest we should have an alphabet, which will be too cumbrous for use in writing, and will require a multitude of new types for printing, these languages. The great danger will be (as Mr. Du Ponceau has observed to me) that every man, however little qualified, “will think himself adequate to the task of inventing new characters, and will delight to display himself in that way. These displays are used in order to conceal the want of ideas and resources.” As in the use of our own language, it is much easier for every tasteless writer to invent new words according to his own caprice, in order to serve his immediate purposes, than patiently and carefully to select from our present abundant stock those appropriate terms, which have the sanction of the best usage; so, in constructing an alphabet for the Indian languages, it will be found a much shorter method, to devise new and gro-

tesque characters, than to apply with skill and discrimination those letters which are already in use either in our own or the kindred alphabets.

I once thought of adding to the proposed alphabet appropriate names for the letters ; but as this was not strictly within my original plan, and would only be necessary in the instruction of pupils, I relinquished it. The names in common use among the European nations and ourselves will answer sufficiently well, with the exception, perhaps, of such as our *G*, *H*, *W*, and *Y* ; which might be called by names, that would more immediately suggest to the learner the respective powers of those letters, than is done by their present denominations ; thus the letter *G* instead of being called *jee*, might have the name of *ghee*, which *Eliot* used to give it ;* *H* might take the German appellation *ha* or *hau* ; *W* might be called *wee*,† as *Eliot* also named it ; and *Y* might be called *ye* or *ya*. Perhaps, too, some suitable appellations may be wanted for the compound characters *sh*, *tsh*, &c. to give the learner some idea of their powers. But, for the reasons above mentioned, it is not necessary here to enter upon the consideration of this subject.

I now subjoin in one view the proposed *Indian Alphabet*, in the following Table ; in which, the first List contains the common letters of our alphabet, as far as it seems practicable to adopt them ; the next contains the class of *nasals* ; after these follow the *diphthongs* ; and lastly, a number of *compound characters*, which will be of more or less frequent use in different dialects.

* *Indian Gram.* p. 3.

† “ We call *W* (*wee*) because our name giveth no hint of the power of its sound.” *Indian Gram.* p. 2.

TABLE OF THE ALPHABET.

A	as in the English words, <i>far, father</i> , &c. (But see the <i>Note on the Vowels</i> , p. 37.)
B	as in English, French, &c.
D	(the same.)
E	as in the English word <i>there</i> ; and also short <i>e</i> , as in <i>met</i> , &c.
F	as in English, &c.
G	English <i>g</i> hard, as in <i>game, gone</i> , &c.
H	an aspiration, as in English, &c.
I	as in <i>marine, machine</i> , (or English <i>ee</i>); and also short <i>i</i> in <i>him</i> .
K	as in English.
L	(the same.)
M	(the same.)
N	(the same.)
O	English long <i>o</i> , as in <i>robe</i> ; and also the <i>o</i> in <i>some, among, above</i> , &c. which is equivalent to the English short <i>u</i> in <i>rub, tun</i> , &c. (But see the remarks on this letter, p. 39.)
P	as in English, &c.
R	(the same.)
S	as in English at the beginning of a word.
T	as in English, &c.
U	English <i>oo</i> , both long and short; French <i>ou</i> .
V	English <i>v</i> , German <i>w</i> , Russian <i>b</i> , Modern Greek β .
W	as in English; French <i>ou</i> .
Y	as in the English words, <i>yet, you</i> , &c.
Z	as in English, &c.

NASALS.

A	as in <i>ang</i> (sounding the <i>a</i> itself, as in <i>father</i> .) But for a better description of this and the other nasals, see the <i>Note on the Nasals</i> , p. 39.
E	long, as in <i>eyng</i> (pronouncing the <i>ey</i> as in <i>they</i> ;) and short, as in the word <i>ginseng</i> ; Portuguese <i>em</i> final. (See <i>Note on the Nasals</i> , p. 39.)
I	long, as in <i>eeng</i> ; and short as in <i>ing</i> ; Portuguese <i>im</i> final. (See <i>Note on the Nasals</i> , p. 39.)
O	long, as in <i>owng</i> (sounding the <i>ow</i> as in <i>own</i> ;) French <i>on</i> ; Portuguese <i>om</i> final. This character will also be used for <i>o</i> short nasalised, which is very nearly the same with <i>ong</i> in <i>among</i> , as this latter is equivalent to <i>ung</i> in <i>lung</i> , &c. See <i>Walker's Dict. Principles</i> , No. 165. See also the <i>Notes on the vowel O</i> , and on the <i>Nasals</i> , p. 38, 39.
U	as in <i>oong</i> ; Portuguese <i>um</i> final.

To these should be added a character for the nasal *awng* or *ong* which corresponds to our *o* in *for, nor*, &c. And, as I have proposed (in p. 38,) to denote this vocal sound, when not nasalised, by *aw*, so it would be most strictly conformable to my plan, to denote the same vocal sound, when it is nasalised, by $\underset{\cdot}{a}$ or $\underset{\cdot}{aw}$. But perhaps the letter *a* itself, with the cedilla ($\underset{\cdot}{a}$) may be used without inconvenience for this broad nasal sound, and we may still, in the common vowels, reserve the simple *a* to denote the sound it has in the word *father*, and not the sound of *aw*. For it may be found, that the first nasal sound in this Table is not common in the Indian languages; in which case it would be best to use the simple $\underset{\cdot}{a}$ for the broad nasal here mentioned.

TABLE OF THE ALPHABET CONTINUED.

DIPHTHONGS.

- AI English *i* in *pine*.
 AU English *ow* in *how*, *now*, &c. and *ou* in *our*.
 IU English *u* in *pure*; French *iou*.
 YU to be used at the beginning, as *iu* may be in the middle, of words.

ADDITIONAL CONSONANTS.

- DJ, DSH, or DZH, English *j* and *dg*, in *judge*; French *dg*.
 DH, as in the English words, *this*, *that*; the *ð* of the Modern Greeks.
 DS, DZ; TS, TZ, English *ts* in the proper name *Betsy*; German and Italian *z*; German *c* before the vowels *e* and *i*; Polish *c* before all the vowels; Russian *Tsi*. These four compounds being nearly alike (as Mr. Du Ponceau justly observes to me) the ear of the writer must direct him which to use, as the respective consonants predominate.
 GH, See *kh* below.
 GZ, or GS, English *x* in *example*, *exact*.
 HW, English *wh* in *what*, *when*.
 KH, guttural, like the Greek *χ*; Spanish *x*, *g*, and *j*; German *ch*; Dutch *gh*. I have in the preceding paper given the preference to *kh* for the purpose of expressing this guttural sound; but *gh* pronounced as the Irish do in their name *Drogheda*, &c. may be better in certain cases where this guttural partakes more of the flat sound, *g*, than of the sharp one, *k*. It may be observed, that *gh* has been already used in some of the books printed for the use of the Indians.
 KS, English *x* in *maxim*, *exercise*.
 KSH, ——— *xi* in *complexion*; *xu* in *luxury*. The formation of this combination would be obvious; but as the sound is actually often used in the Delaware language, I have thought it best to notice it.
 KW English *qu*.
 LY or LI, as in the English word *steelyard*; French *l mouillée*, Spanish *ll*, Portuguese *lh*, Italian *gl* before *i*.
 NY or NI, as in the English proper name *Bunyan*, and the words *onion*, *opinion*, &c.
 TH, in the English word *thin*; Greek *θ*.
 TS }
 TZ } See *ds* above.
 TSH, English *ch*, in *chair*; Spanish *ch* in *much*; Italian *c* before *e* and *i*; German *tsch*; Russian *ч*.
 WT, as in the Delaware language.
 ZH, as *s* in *pleasure*; French and Portuguese *j*; Polish *z*, with a comma over it (*ż*).

NOTE ON THE VOWELS.

In considering the several *letters* by which the vowel *sounds* are represented, both in our own and other languages, it will be perceived, that each of them may be taken as representing, not a single sound, but a *series* of sounds, which series will be more or less extensive according to the genius of different languages; and it will be further observed, that each series gradually runs into the adjoining series (if we may so speak) by such slight and delicate modifications, that it is a matter of no small difficulty, in many cases, to decide in what part of any one series we should drop the vowel character with which we begin, and take another to continue the sounds of the next series; in other words, it is not easy to determine, at what point one series ends and another begins. For example; if we take the letter *a*, we may assume the sound which it has in the word *father*, as the middle point of a series, the whole of which, (beginning with the broad *a* in *fall* and ending with the narrow or slender *a* in *fate*) we denote in English by this one character, thus: FALL—FAR—FAT—FATE—

and these are all the sounds in this series, which philologists designate in our own language by this one letter. But if we extend our view to other languages, we shall find various intermediate sounds between the two extremes of this same series; for example, between the sounds of our *a* in *fall* and in *far*, we find in the *French* language, the *â* in *pâle*, *mâle*, &c. which can only be described, on paper, as a sound between our two, and which is seldom attended to by foreigners in speaking French. Now, if we should minutely examine a number of languages, and should endeavour to arrange accurately in one progression all the vowel sounds belonging to this series, we should doubtless discover in those languages many other slight modifications intervening between the different members of our English series. As, however, we cannot accustom our ears familiarly to distinguish, nor our organs of speech to utter with precision, all these slightly differing sounds, so we need no distinctive characters to represent them to the eye, but it will be sufficient in practice to have characters for the *principal* sounds (as we may call them) in each series; just as in the prismatic series of colours, we content ourselves with a few names to denote one principal shade of each colour, without fruitlessly attempting to devise terms of theoretical nicety, to describe the innumerable shades on either side of the principal one from which we set out.

If we now recur for a moment to the series above denoted by *A*, we find on one side of it a series which we denote by the letter *O*, and on the other side, a series which we denote by the letter *E*; in the former we begin with the sound of *o* in *morn*, which might be written with *au* or *aw* (or with *a* alone, if we had been accustomed to write this word with that letter, as we do the word *war*) and then we proceed to the sound which it has in *more*, till we arrive at that which it has in *move*; which point may be considered, practically speaking, as forming the end of one series and the beginning of another, which is represented by the letter *U*; and these two contiguous extremes are sometimes represented by *o* and sometimes by *u*, that is, our *oo*. If we now take the other side of the series, represented as above by *A*, and set out from the sound which that letter has in the word *fate*, we enter upon a series, of which the letter *E* may be called the representative, beginning with its sound in the word *met*, which is the short sound of *a* in *fate*; and this series, proceeding imperceptibly through various gradations, at length vanishes in the simple unequivocal sound of *ee*, which foreign nations denote by the third vowel, *i*. The following table will perhaps make these remarks more intelligible:

			Series of the letter A :						
			FALL	FAR	FAT	FATE			
Series of O :							Series of E :		
MORN			MORN			THERE	THERE		
MORE							THESE		
MOVE							MARINE, &c.		
RULE, &c.									

Now in writing the Indian languages, it will often be found extremely difficult to decide in each series of the vowel sounds, to what extent on each side of the principal or middle point (as I have called it) we shall use the same vowel character, or when we shall have recourse to the letter which is the representative of the next adjacent series.

From these considerations in the case of the vowel *A*, though we have no difficulty in using it to denote the sound of *a* in *far*, yet when we proceed in the series to the full broad sound which it has in *full*, we feel a repugnance (arising from old habits in our own language) to denoting that sound by the single vowel, and are rather inclined to express it by *au* or *aw*. If it should be thought that it might be denoted by *o* (as in *for*) it will be obvious, that this would only be throwing the same difficulty into another series, and we should then have to decide again, how far the letter *o* shall be employed in that series, on each side of its principal sound of *o* in *more*. Now this broad sound (*aw*) though found in the European languages, is not commonly represented in them by the letter *A*; and therefore foreigners, who should attempt to read any Indian language, in which the simple *a* was employed to denote the sound *aw*, would inevitably be misled, and pronounce the *a* in *father*. It has therefore seemed to me better, in an alphabet designed for general use, to employ *aw* to denote this broad sound, and to reserve the single letter *a* to denote its common foreign sound, as in *father*. I should use *aw* and not *au*, because the latter has already the established power of a *diphthong* in the foreign languages, equivalent to our diphthong *ow* in *now*, *how*, &c. but *aw*, being a combination not in common use, would attract the attention of the foreign reader as a new character, and would not lead him into error. Mr. Du Ponceau, after much reflection, prefers using *a* alone for the sound of *aw*, and then denoting the sound of *a* in *father* by the diphthong *æ*. His opinion much diminishes the confidence I have had in my own; but as my plan was founded upon the idea of taking the common European sounds of the vowels as the basis of the alphabet, I have thought it would be too great a departure from it, if I should give to the vowel *a* any other than such common sound.

It will be observed, that I have employed the letter *O* as the representative of two sounds; that is, the *long* sound of *o* in *robe*, *tone*, &c. and the *short* sound of *u* (as we term it in English) in *rub*, *tun*, &c.; which latter sound, as appears in the Table, we often denote in English by *o* also; as in the words *among*, *above*, &c. In conformity with this use of the simple character *o*, I have, in the Table of *Nasals*, employed the same letter also with a cedilla (*o*) to denote both the *long* nasal *owng* (French *on*) and the *short* nasal which we hear in *among*, *hunger*, &c. Those persons, who have not had occasion to analyze the sounds of our language and to remark how often we represent the same sounds by different characters, and *vice versa*, are not aware how apt the ear is to be misled by the eye; or, in other words, how apt we are to judge of vocal sounds by the written characters which we are accustomed to employ in representing them; and such persons may, perhaps, from the force of habit, feel a little repugnance to denoting by the single letter *O*, two sounds which, in our own language, we have been used to consider as essentially different from each other and to express, in general, by the two different characters *o* and *u*. A careful comparison, however, of these two vowel sounds, under various combinations of the consonants, will show that they do not differ so materially as our various modes of representing them might lead us to suppose; but on the contrary, that their principal difference is in their length or *quantity*; while in respect to *quality*, the difference between them (to apply the language of another science) may be almost said to be less than any assignable one, and therefore they may well enough be denoted by the same letter. In addition to the proof we have of this close resemblance, from an examination of our own language, we see also very strong evidence of it in the case of *foreigners* when attempting to speak our language; for they constantly express our short *u* by *o*; as for example, in our word *but*, which they would write *bot*, and would pronounce *bote*. If, however, any person, who may

wish to adopt the proposed Indian alphabet, should still feel a reluctance in employing the letter *o* (even with a distinctive mark as mentioned in pp. 12—15) for the purpose of denoting this short sound of *u*, I know of no method of obviating the difficulty (consistently with the plan of the alphabet) except by having recourse to a *new character*; and in that case I have thought that it might be formed from the same letter *o*, by making a small opening in the upper part of it in this manner, *U*. This character would sufficiently resemble both *o* and *u* to be easily retained in the memory, and would, moreover, occasion no embarrassment in printing the Indian languages; for those printers, who may not be provided with types expressly made for the purpose, might easily form this character out of a common type, by merely cutting out a small portion of an *o* (thus, *o*) which would answer the purpose. The only objection to this would be the general one, the inconvenience of multiplying new characters; upon which point I have made some remarks in page 33 of this Essay. For further remarks on the subject of the letter *O* see *Walker's Dictionary, Principles*, No. 67 and 165.

The Nasals. The description of the *Nasals*, in the preceding *Table*, by the syllables *ang, eeng, &c.* is to be considered merely as a rude approximation to their true sounds. Those persons who are acquainted with the French language will need no description of them; those who are not, may possibly have a more just conception of them by carefully attending to a class of English words, in which the *nasal* is followed by the consonants *g*, or *k*, or *c* hard; as in *linger, thinking, uncle, &c.* If we divide one of these words a little differently from our usual method of spelling them, the true nasal sound will become distinctly perceptible. The word *linger*, for example, is usually divided into two syllables, the sounds of which we should express separately, thus *ling-ger*; now in pronouncing the word in that manner, as soon as we arrive at the end of the first syllable, the tongue is perceived to touch the roof of the mouth, and we then distinctly hear the sound of our English *ng*: But if, instead of thus fully pronouncing the whole of the syllable, we prolong the indistinct sound which is formed the moment before the *g* is uttered, and do not allow the tongue to touch the roof of the mouth, we shall have the *short* nasal sound *i* in the *Table*; and if we go through the same process again, only giving the vowel *i* its long foreign sound (like our *ee*) we shall have the *long* nasal sound of the same character *i*. And in a similar manner we may form the other nasal sounds in the *Table*. For further observations on the *nasal* sounds, see *Walker's Dictionary*, under the word *Encore*, and also his *Principles*, No. 381 and 408.

In connexion with the subject of the *nasals* it will not be uninteresting to refer to a curious remark of an ancient writer upon the subject of the letter *N* before *G* or *C*, in the *Latin* language. The remark is to be found in *Aulus Gellius* (lib. xix. c. 14.) who cites it from *Nigidius*; and it shows very clearly the Roman pronunciation of the letters *ng* together, while at the same time it indicates, that the letter *c* (being pronounced like *k*) when preceded by *n* coalesces with the *n* just as *g* does; as is the case with *c* hard in many English words:—"Inter litteram *N* et *G* est alia vis; ut in nomine *anguis* et *angaria* et *ancoræ* et *increpat*, et *incurrit* et *ingenuus*. In omnibus enim his, non *verum N*, sed *adulterinum* ponitur; nam *N* non esse lingua indicio est; nam, si ea littera esset, *lingua palatum tangeret*."

CORRECTION.

After the 27th and 28th pages were printed, Mr. Du Ponceau expressed some doubts respecting the Russian orthography of the word *Kamtshatka*, which he gave me from recollection only; and I now find, upon inquiry of a Russian gentleman in Boston, that the name is written in that language *КАМУШАТКА*, which would be in English *Kamchatka* or *Kamtshatka*.

APPENDIX.

Account of Father Râle's MS. Indian Dictionary.

I have thought it would not be uninteresting, and might be of some use, to give in this place a short bibliographical account of the valuable Manuscript Dictionary of the *Abnaki* language mentioned in p. 12 of the preceding paper. The author of it, Father *Sebastian Râle* (or *Rasles*, for the name is written both ways) was one of the Jesuit Missionaries, and came to New England in the year 1689. He resided with the Indians principally at a settlement called *Norridgewock* (which he calls *Nanrantsowak*) on the river *Kennebeck*, upwards of thirty years, and was killed in a battle between the Indians and English in 1724. A short but interesting memoir of this able missionary was lately published by the Rev. *Thaldeus M. Harris, D.D.* in the *Massachusetts Historical Collections*, vol. viii. Second Series, p. 250. In the same volume will be found copies of some of his letters, with other papers respecting him, which I transcribed from the originals deposited in the archives of Massachusetts; among them is a very spirited manifesto, in *French*, from various tribes of Eastern Indians against the Provincial Government of Massachusetts, probably written by *Râle* himself. Other letters of his, and an account of his death, will be found in that valuable work, well known among the learned, under the title of *Lettres Edifiantes et Curieuses* (published in 26 volumes, 12mo.) which contains Letters or Reports of the Jesuit Missionaries in various parts of the world: See vol. vi. p. 127.

The MS. is a quarto volume and in the hand-writing of *Râle* himself. On the first leaf is the following note:

“1691. Il y a un an que je suis parmi les sauvages, je commence a mettre en ordre en forme de dictionnaire les mots que j'apprens.” Immediately below this there is, in an old hand-writing, the following:

"Taken after the fight at Norridgwock among Father Ralle's Papers, and given by the late Col. Heath to Elisha Cooke, Esq.

Dictionary of the Norridgewalk Language."

The volume consists of two parts, the *first* of which is a *general Dictionary* of the language in French and Indian. This part consists of 205 leaves (as they are numbered) about one quarter part of which have writing upon both sides, and the remainder, upon one side only. The pages are divided, though not with regularity throughout, into two columns; the first of French, and the second of Indian, containing each about twenty five lines. The *second part* of the volume consists of twenty five leaves, almost all written upon both sides, and has this Latin title—" *Particulæ.*" In this part the *Indian* words are placed first, and the author gives an account of the *particles*, making his explanations sometimes in French and sometimes in Latin.

From a comparison which I have made of several words of the language now spoken by the *Penobscot* Indians (as we call them) who, at the present time, occupy a small territory on the river *Penobscot*, it appears to be, as we should naturally expect, exactly the same with that of *Râle's* Dictionary. A few years ago one page of this Dictionary, containing the Indian numerals, was published in our *Massachusetts Historical Collections*, vol. x. p. 137; but a very natural mistake, either of the printer or of the transcriber, runs through this extract, in constantly printing *aii* instead of *aiï*. This error probably arose from the uncommon use of the diæresis, which is here put over a consonant (N) instead of a vowel as is the practice in other languages. *Râle* seems to have used the diæresis thus, in order to point out when the letters *an* were not to have the nasal sound which they had in the French language.

So copious a dictionary, compiled a century ago by a man of acknowledged abilities and learning, and who had resided more than thirty years among the Indians, is one of the most important documents now existing, relative to the history of the North American languages; and measures ought to be taken without loss of time, either under the direction of the University or of the American Academy, to effect the publication of it, before any accident happens to the manuscript. The Legislature of our own State would, without doubt, be fully sensible of the importance of publishing it, and would lend its aid in making provision for the expense of printing in a manner becoming the Government, a work which

the public has a peculiar right to expect from the State of Massachusetts. Our brethren in Pennsylvania have recently distinguished themselves by their valuable publications relative to the Indians, which I have mentioned in the preceding paper, and which may be said to form an era in our *American Researches*. It is to be hoped that our own State, which may justly claim the merit of having already preserved many invaluable materials for American history, will not be willing to let pass an opportunity, like the present, of adding to its reputation abroad by publishing the work in question; for we may be assured, that nothing would reflect more honour upon the country, and nothing relative to this continent would be more acceptable to Europeans, particularly the German literati, than the publication of such an original document.

POSTSCRIPT.

Page 4. "*The first fruits of these inquiries*," &c.

I have unintentionally overlooked the useful work of the late Dr. *Barton*, entitled "*New Views of the Indian Tribes*," &c. of which two editions have been already published, and which it was the author's intention to have rendered still more valuable by an entire revision of it.

TREATMENT REPORT

Statues of the American Academy of Arts and Sciences

AS 36 A67 S8 1823

Condition

- The original binding was quarter-leather, with marbled paper sides. Spine was completely missing. There was evidence of a previous rebacking. Back and front endsheet were not marbled and were separated from the text. Both boards were completely detached. The text is sewn on 5 sawn-in cords. One folio in the center of text block was never sewn in. Two pages at front and one at back were loose.

Treatment

- Spine was cleaned with methylcellulose.
- Loose pages were hinged with Japanese paper (Kizukishi) and Zin Shofu paste.
- Loose folio was sewn with linen thread- 30/2.
- Linen hinged handmade endsheets (Rotunda) were sewn on-18/3 thread.
- Endsheets were guarded on using Kizukishi and paste.
- Spine lined twice overall with Kizukishi and paste.
- Spine lined twice overall with Japanese paper (Sekishu) and paste.
- Spine lined two times overall with handmade paper (BG9) and paste.
- Bradle binding was made using Berkeley Blue handmade paper for the bonnet.
- Boards were lined with bond paper and adhesive mixture.
- Boards were covered with Berkeley Blue handmade paper, cloth, and vellum tips.
- Text block was cased-in using adhesive mixture.
- Twinrocker Rotunda paper was used for paste-downs and attached with adhesive mixture.
- Label and treatment report were laser printed on Twinrocker Rotunda paper.
- Label and treatment report were sprayed with a fixative (Krylon) and attached with adhesive mixture

Materials

Kizukishi Japanese paper- Barrett, University of Iowa, Iowa.
Zin Shofu paste- Bookmakers- Riverdale, Maryland.
Thread, 30/2 and 18/3- Bookmakers- Riverdale, Maryland.
Linen- Bookmakers- Riverdale, Maryland.
Rotunda Laid handmade paper TT/CP- Twin Rocker, Brookston, Indiana.
Sekishu Japanese paper- Bookmakers- Riverdale, Maryland.
B9G handmade paper- Barrett- University of Iowa, Iowa.
Berkeley Blue handmade paper- Twinrocker, Indiana.
Permalife Bond paper- University Products- Holyoke, MA.
Adhesive mixture- 60% PVA and 40% methylcellulose.
Boards- Supreme Blue Conservation Board- Archivart, New Jersey.
Cloth- Cotlin Cloth- Talas- New York, NY.

April-03

Karen Sosa, Conservation Assistant

Conservation Department, University of California, Berkeley

